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Patton Has the Remotest Idea!

Models 360 and 3022 are Great for Remote Configuration

by Jim Fowler

Patton Electronics has always been the champ when it comes to RS-232 products. And though some finger-waggers might label RS-232 as “obsolete,” fascinating applications for Patton RS-232 products just seem to keep cropping up—even in modern telecommunications scenarios. Take, for example, two recent real-life applications that use Patton products to facilitate RS-232 remote hardware configuration. In both applications the basic scenario is the same: a local product support technician wants to configure one or more hardware devices in a remote location. Let’s take a closer look at both applications:

Single Device Remote Configuration - Model 3022

In the first application, a piece of asynchronous hardware at a company’s remote site periodically dials up a piece of asynchronous hardware at the company’s headquarters—using standard V.34 modems—to download RS-232 data (see Figure 1, below). A technician at the headquarters *also* wants to send configuration com-

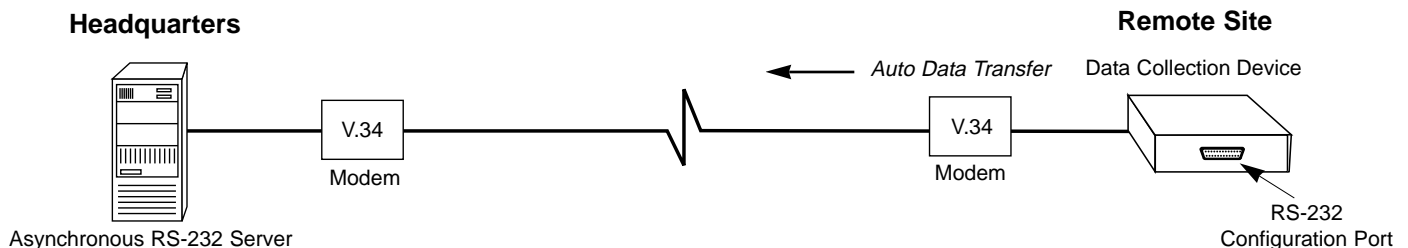


Figure 1. Single Device RS-232 Remote Configuration Requirement

mands to that same piece of remote hardware, using the device’s separate serial configuration port. The problem? How to accomplish both tasks simultaneously with only two modems and the single POTS line connection. On one hand the technician wants to keep the line completely free for automatic data transfer between the two devices (so a mechanical or electronic switching solution is ruled out). On the other hand, the technician wants to avoid the expense of installing another modem at both sites and procuring a second POTS line merely to do periodic remote configuration.

The solution? Installation of a Patton Model 3022 two-channel statistical multiplexer on both the local and remote modems (see Figure 2, following page). This little mini-mux enables the technician to send configuration commands to the remote device over the same modem connection used for data transfer. And the two devices still have access to an unimpeded pathway for automatic data downloads. In short, both data transfer and configuration functions can be performed *simultaneously* using the *same* connection!

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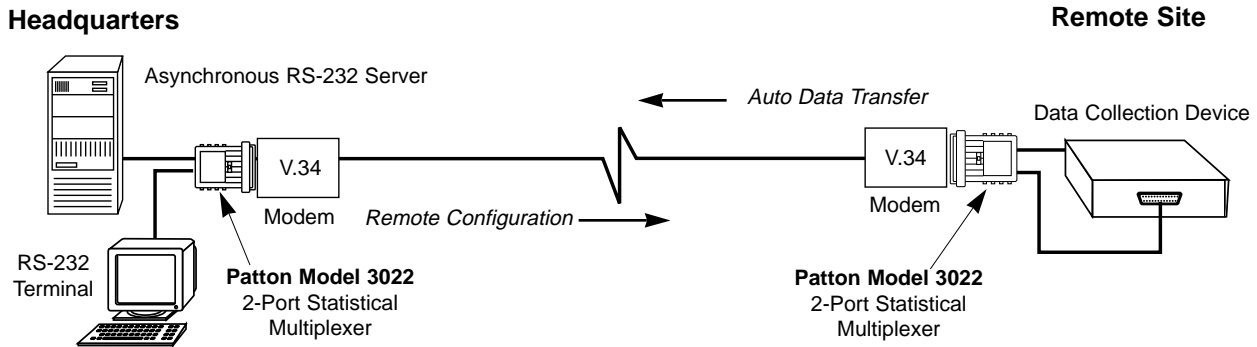


Figure 2. Patton's Solution for Single Device RS-232 Remote Configuration

Multiple Device Remote Configuration - Model 360

In the second application a company maintains several remote sites with banks of routers at each site (see Figure 3, below). Each of the routers has an RS-232 configuration port, and there could be dozens of routers at a single location. The company wanted one technician at the headquarters to be able to dial into a particular router at a particular remote site and configure that router. The technician was only to have a PC, a dial-up modem and a single POTS line.

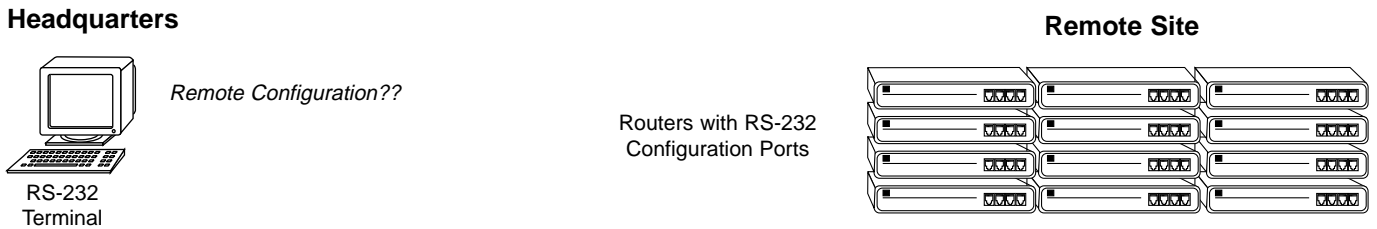


Figure 3. Multiple Device RS-232 Remote Configuration Requirement

The answer was to install several Patton Model 360 simple sharing switches—plus one dial-up modem—at each remote location (see Figure 4, below). The Model 360 has two features that make it ideal for this application: First, the Model 360 can be outfitted with up to eight bi-directional serial ports per box, and up to eight boxes can be cascaded together. That means that up to 55 routers can be connected to the system of

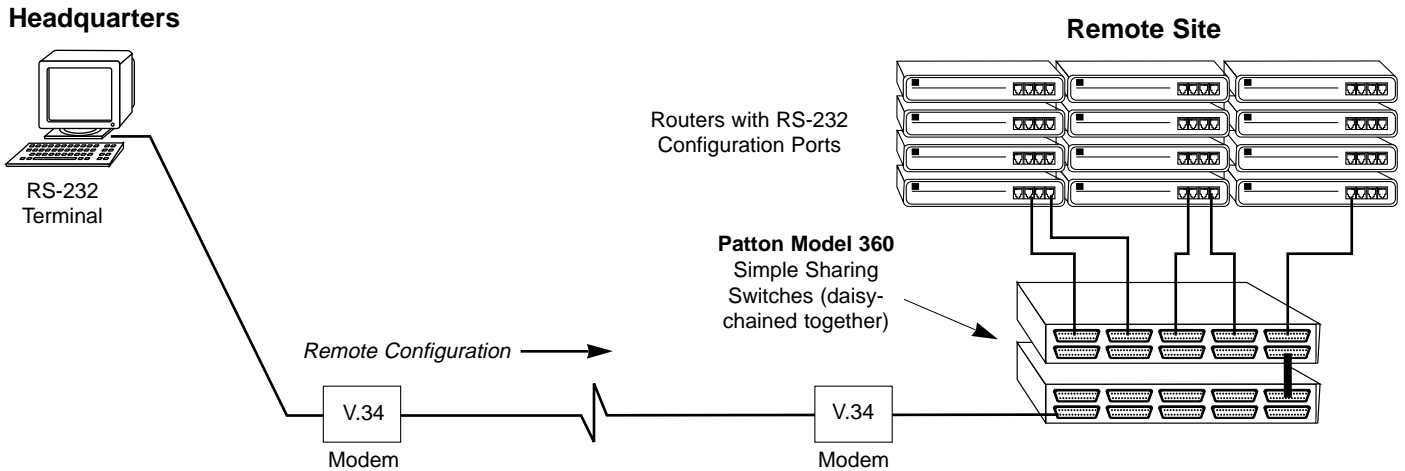


Figure 4. Patton's Solution for Multiple Device RS-232 Remote Configuration

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switches for every modem line used! Second, the Model 360 is a *code-operated* switch. This allows the technician to dial into a remote modem (which is connected to the first Model 360 in the chain) and enter a code string of instructions to the switch system.

For example, if the technician wants to configure router #34, he sends a simple character string ahead of the configuration commands containing the switch number (#06) and the port number on that switch (#05). A bi-directional connection is automatically established between the technician and router #34. When configuration is completed, the technician can tell the Model 360 switching system to send him to router #18 by keying a character string containing a new switch number (#03) and port number (#07). In this manner the technician is able to configure as many routers as necessary with just one modem call.

For further information about how Patton products can be used in remote configuration applications, contact our technical support team (support@patton.com).

About Patton

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